

# SECO Safety and Environmental Compliance Office



*DON'T LEARN SAFETY BY ACCIDENT*

*MARCH 2006*

*VOLUME 1, ISSUE 4*

NOAA would like to announce the appointment of

***S. Seagull***

as our NOAA Safety and Environmental mascot.



As everyone within NOAA already knows, ***S. Seagull*** has many hours of atmospheric flight experience as well as an extensive knowledge of our coastal and oceanic environment. For years, ***S. Seagull*** has been observing NOAA researchers and mariners, so assuming the role of watching over NOAA to ensure we conduct ourselves in a safe and environmentally friendly manner is a natural fit for ***S. Seagull***.

I encourage you to take a team approach by continuing to make safety a top priority in NOAA.

# AVOIDING CARPAL TUNNEL SYNDROME

Abbreviated version of an article published by:

Department of Computer Science and Engineering, Michigan State University

Carpal tunnel syndrome (CTS) is a painful, debilitating condition. It involves the median nerve and the flexor tendons that extend from the forearm into the hand through a "tunnel" made up of the wrist bones, or carpals, and the transverse carpal ligament.

## CAUSES

**Genetic predisposition.** Certain people are more likely than others to get CTS.

**Health and lifestyle.** People with diabetes, gout, and rheumatoid arthritis are more prone than others to develop CTS.

**Repetitive motion.** The most common cause of CTS that's been attributed to the workplace is repetitive motion.

**Trauma.** A blow to the wrist or forearm can make the tendons swell and cause or encourage the onset of CTS.

## WORK ROUTINE

You need very little recovery time between keystrokes to cool and lubricate the flexor tendons. If you type constantly, however, the need for recovery builds.

## PREVENTION

Computer keyboard users can take several steps to lower their chances of developing CTS.

**Ergonomics.** Proper seating is crucial to good ergonomics.



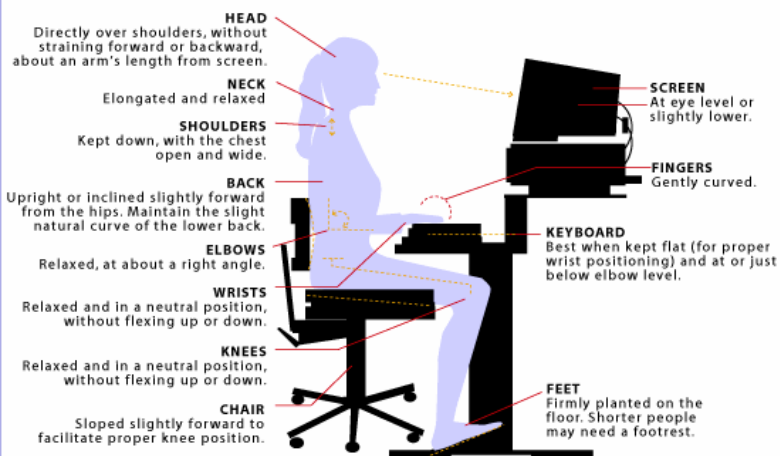
**Table height.** To adjust the chair properly, look first at the height of the table or desk surface on which your keyboard rests.

**Wrist angle.** If your keyboard is positioned properly, your wrists should be able to rest comfortably on the table in front of it.

**Elbow angle.** With your hands resting comfortably at the keyboard and your upper arms vertical, measure the angle between your forearm and your upper arm (the elbow angle).

**Waist angle.** With your elbow angle at 90 degrees, measure the angle between your upper legs and your spine (the waist angle).

**Feet.** With your elbows and waist at 90 degree angles, your feet should rest comfortably flat on the floor.



### Where can I get more information?

Occupational Safety & Health Administration  
U.S. Department of Labor  
200 Constitution Avenue, NW  
Washington, DC 20210  
<http://www.osha.gov/SLTC/ergonomics/index.html>  
Tel: 800-321-OSHA (-6742)

[Carpal Tunnel Syndrome Fact Sheet](#)

[Treat Carpal Tunnel Syndrome](#)

[Set Up Your Work Space Ergonomically](#)

To read this article in its entirety please visit

<http://www.cse.msu.edu/facility/avoid-ct.php>

# Fire Sprinkler Clearances

## *What's the scoop on Fire Sprinkler Clearances*

### CLEARANCES

According to Michael Bonkowski, Compliance Officer, OSHA Region X, the OSHA Regulations on clearances for fire sprinklers are as follows: "The employer shall assure that sprinklers are spaced to provide a maximum protection area per sprinkler, a minimum of interference to the discharge pattern by building or structural members or building contents and suitable sensitivity to possible fire hazards. The **minimum vertical clearance** between sprinklers and material below shall be 18 inches (457 mm)."

### OBSTRUCTIONS

According to the National Fire Protection Association (NFPA-13), the continuous or non-continuous obstructions shall not be less than 18 inches (457mm) below the sprinkler deflector in order to ensure a fully developed discharged pattern of water over the affected area.

The illustration below shows the clearances required by OSHA and NFPA for all fire sprinkler systems.



Safety and Health Topics

## *Personal Protective Equipment (PPE)*

- OSHA requires the use of personal protective equipment (PPE) to reduce employee exposure to hazards when engineering and administrative controls are not feasible or effective in reducing these exposure to acceptable levels. Employers are required to determine if PPE should be used to protect their workers.



If PPE is to be used, a PPE program should be implemented. This program should address the hazards present; the selection, maintenance, and use of PPE; the training of employees; and monitoring of the program to ensure its ongoing effectiveness.



For more information, visit:

<http://www.osha.gov/SLTC/personalprotectiveequipment/index.html>

While on a ladder, never step back to admire your work.

~Author Unknown

# Underground Storage Tank Compliance Act of 2005 (USTCA) Reporting Requirements

By: Will Freeman, SECO

On August 8, 2005 President Bush signed the Energy Policy Act of 2005. Subtitle B of Title XV established the Underground Storage Tank Compliance Act of 2005 (USTCA) requires each Federal agency that owns or operates one or more Underground Storage Tank (UST) or manages land on which one or more USTs are located to submit a report about these USTs to the EPA Administrator and Congress by August 8, 2006.

Under the Act, each Federal agency must report all USTs that it owns or operates or all USTs located on lands that the agency manages. Not all USTs require reporting - the following are examples of types of tanks that are **NOT** included in the statutory definition of "underground storage tank":

- Farm and residential tanks of 1,100 gallons or less capacity holding motor fuel used for noncommercial purposes;
- Tanks storing heating oil used on the premises where it is stored;
- Tanks on or above the floor of underground areas, such as basements or tunnels;
- Septic tanks and systems for collecting storm water and wastewater;
- Flow-through process tanks;

To help NOAA with these reporting requirements, DOC has established an on-line data reporting system through the Fed Center site ([www.fedcenter.gov](http://www.fedcenter.gov)).

NOAA facilities which have UST(s), *not exempted as stated above*, will need to report their USTs on the Fed Center system by **April 19, 2006**. To establish your Fed Center account, please forward the reporting person's name and email address to Will Freeman, [will.freeman@noaa.gov](mailto:will.freeman@noaa.gov) by **March 24**,



## General Description

USTs are primarily used for the storage of petroleum products. They are found at service stations, connected to boilers/steam generators, or connected to emergency generators.



## Compressed Gas Cylinders: the Physical Hazard

There are two types of hazards associated with the use, storage and handling of compressed gas cylinders: the chemical hazard associated with the cylinder contents (corrosive, toxic, flammable, etc.) and the physical hazards represented by the presence of a high pressure vessel in the laboratory.

The following table outlines some of the physical attributes of compressed gas cylinders and describes some of the dangers that may result from improper use.

<i>The Sleeping Giant</i>
<b>I am a high pressure, compressed gas cylinder.</b>
I stand 57 inches tall.
I am 9 inches in diameter.
I weigh in at 155 pounds when filled.
I am pressurized at 2,200 pounds per square inch (psi).
I have a wall thickness of about 1/4 inch.
I wear a regulator and hose when at work.
I wear a label to identify the gas I am holding. My color is not the answer.
I transform glistening ships and many other things into miscellaneous stacks of material - when allowed to unleash my fury unchecked.
I can be ruthless and deadly in the hands of the careless and uninformed.
I am too frequently left standing alone on my small base without other visible means of support - my cap removed by an unthinking worker.
I am ready to be toppled over - when my naked valve can be damaged or even snapped off - and all my power unleashed through an opening no larger than a lead pencil.
I am still proud of my capabilities - here are a few of them:
.....I have on rare occasions been known to jet away - faster than any dragster.
.....I might smash my way through brick walls.
.....I might even fly through the air.
.....I may spin, ricochet, crash and slash through anything in my path.
Take the following steps to prevent a disaster:
.....Full or empty - see to it that my cap is on, straight and snug.
.....Never-repeat- never leave me standing alone. Secure me so that I cannot fall.
~ Published by Linde Division, Union Carbide Corporation ~

### \*\*\* **Remember**

- the greatest physical hazard represented by the compressed gas cylinder in the laboratory  
is the tremendous force that may be released if it is knocked over!

To read this article in its entirety please visit

<http://www.eas.asu.edu/civil/safety/compressedgas.htm>

### ABOUT THIS NEWSLETTER

This newsletter is brought to you by the staff of the Safety and Environmental Compliance Office (SECO). The issues will be produced on a quarterly basis and posted on <http://www.seco.noaa.gov/> to help increase awareness of the environmental, safety and health programs. If you have any questions or comments, please contact SECO at (301)713-2870.